

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for automatically validating text that is input to a client computer, the method comprising:

at the client computer, processing a markup language file to receive text input, said markup language file comprising a description of a graphical user interface (GUI), the description comprising a GUI element enabled to receive the text input and an attribute specifying a type associated with the GUI element, wherein the markup language file comprises a markup language tag for instantiating a validation manager at the client computer;

in response to processing the markup language file at the client computer, instantiating the validation manager at the client computer and the validation manager instantiating a validation component corresponding to the type associated with the GUI element;

in response to processing the markup language file, displaying the GUI on a display screen at the client computer;

receiving text into the GUI element enabled to receive text;

in response to receiving text into the GUI element, sending a programmatic event to the validation manager;

in response to receiving the programmatic event at the validation manager, calling the validation component and specifying the text input to the GUI element;

the validation component determining at the client computer whether the received text is valid text input for the type associated with the GUI element and returning a result value to the validation manager indicating whether the text input received by the GUI element is a valid text input; and

providing an indication that the received text is invalid if the received text is determined to be invalid.

2. (Canceled).

3. (Currently Amended) The method of claim 1, wherein receiving text into the GUI element comprises a user ~~of the application~~ providing text input to the GUI element.

4. (Previously Presented) The method of claim 1, wherein receiving text into the GUI element comprises an application providing text into the GUI element.

5. (Currently Amended) The method of claim 1,
wherein the description of the GUI element ~~enabled to receive text input~~ comprises one or more attributes for specifying how the text input is to be validated, said first mentioned attribute being among said one or more attributes; and

wherein the validation manager is operable to validate text input to the GUI element in accordance with the one or more attributes ~~specifying when text input to the GUI elements should be validated~~.

6. (Currently Amended) The method of claim 5,
wherein each of the one or more attributes for specifying ~~when~~ how the text input to the GUI element should be validated corresponds to at least one type of programmatic event; and
wherein receiving a programmatic event comprises the validation manager ignoring the programmatic event if the programmatic event does not correspond to one of the attributes for specifying ~~when~~ how the text input to the GUI element should be validated.

7. (Previously Presented) The method of claim 1,
wherein receiving text into the GUI element comprises receiving one or more of the following actions:

- changing the value of the GUI element,
- pressing a key,
- releasing a key,
- causing the GUI element to gain user interface focus,
- causing the GUI element to lose user interface focus,

moving a mouse pointer over the GUI element,
clicking on the GUI element,
double-clicking on the GUI element;

wherein said validation manager receiving a programmatic event in response to receiving text into the GUI element comprises the validation manager receiving a programmatic event corresponding to the action performed.

8. (Previously Presented) The method of claim 1, wherein the markup language tag for instantiating the validation manager comprises one or more parameters for specifying the default behavior of when the validation manager should validate text input for GUI elements described in the markup language file.

9. (Previously Presented) The method of claim 8,
wherein the description of the GUI element enabled to receive text input comprises one or more attributes for specifying when text input to the GUI element should be validated; and
wherein the validation manager is operable to override the default behavior and validate text input to the GUI element in accordance with the one or more attributes specifying when text input received to the GUI element should be validated.

10. (Currently Amended) The method claim 1, wherein ~~said validation manager~~ indicating that the text input received to the GUI element is invalid comprises the validation manager requesting ~~the application to alter~~ the visual appearance of the GUI element be altered.

11. (Currently Amended) The method of claim 1, wherein ~~said validation manager~~ indicating that the text input received to the GUI element is invalid comprises the validation manager displaying an informational user interface window.

12. (Currently Amended) ~~The method of claim 1,~~ A method for automatically validating text that is input to a client computer, the method comprising:

at the client computer, processing a markup language file to receive text input, said markup language file comprising a description of a graphical user interface (GUI), the description

comprising a GUI element enabled to receive the text input and wherein the description of the GUI element enabled to receive text input comprises one or more attributes for controlling text input validation for the GUI element, wherein the markup language file comprises a markup language tag for instantiating a validation manager at the client computer; wherein, said processing a markup language file comprises comprising the application constructing a document object representing the markup language file;

in response to processing the markup language file at the client computer, instantiating the validation manager at the client computer, wherein instantiating the validation manager comprises the application passing a reference to the document object to the validation manager, manager; and wherein, in response to being instantiated by and receiving the reference to the documents object, the validation manager is operable to traverse the document object in order to discover the one or more attributes for controlling text input validation for the GUI element;

in response to processing the markup language file, displaying the GUI on a display screen at the client computer;

receiving text into the GUI element enabled to receive text;

in response to receiving text into the GUI element, sending a programmatic event to the validation manager;

in response to receiving the programmatic event at the validation manager, determining at the client computer whether the received text is valid text input; and

providing an indication that the received text is invalid if the received text is determined to be invalid.

13. (Original) The method of claim 12, wherein the one or more attributes for controlling text input validation for the GUI element include an attribute for specifying a type associated with the GUI element.

14. (Original) The method of claim 12, wherein the one or more attributes for controlling text input validation for the GUI element include one or more an attributes for specifying when text input to the GUI element should be validated.

15. (Original) The method of claim 12, wherein the one or more attributes for controlling text input validation for the GUI element include one or more attributes for specifying how invalid text input for the GUI element should be indicated.

16. (Previously Presented) The method for claim 1, wherein the validation manager is a COM object.

17. (Previously Presented) The method of claim 1, wherein the validation manager is a Java object.

18. (Original) The method of claim 1, wherein the markup language is HTML.

19. (Currently Amended) The method of claim [[2]] 1, wherein the type associated with the GUI element is a type comprising one or more of: Coordination of Benefits (COB) code, Current Procedural Terminology (CPT) code, HCFA Common Procedure Coding System (HCPCS) code, International Classification of Diseases (ICD) code, U.S. Employer Information Number (EIN), U.S. Social Security Number, currency, U.S. states and territories, telephone number, zip code, date, and Boolean.